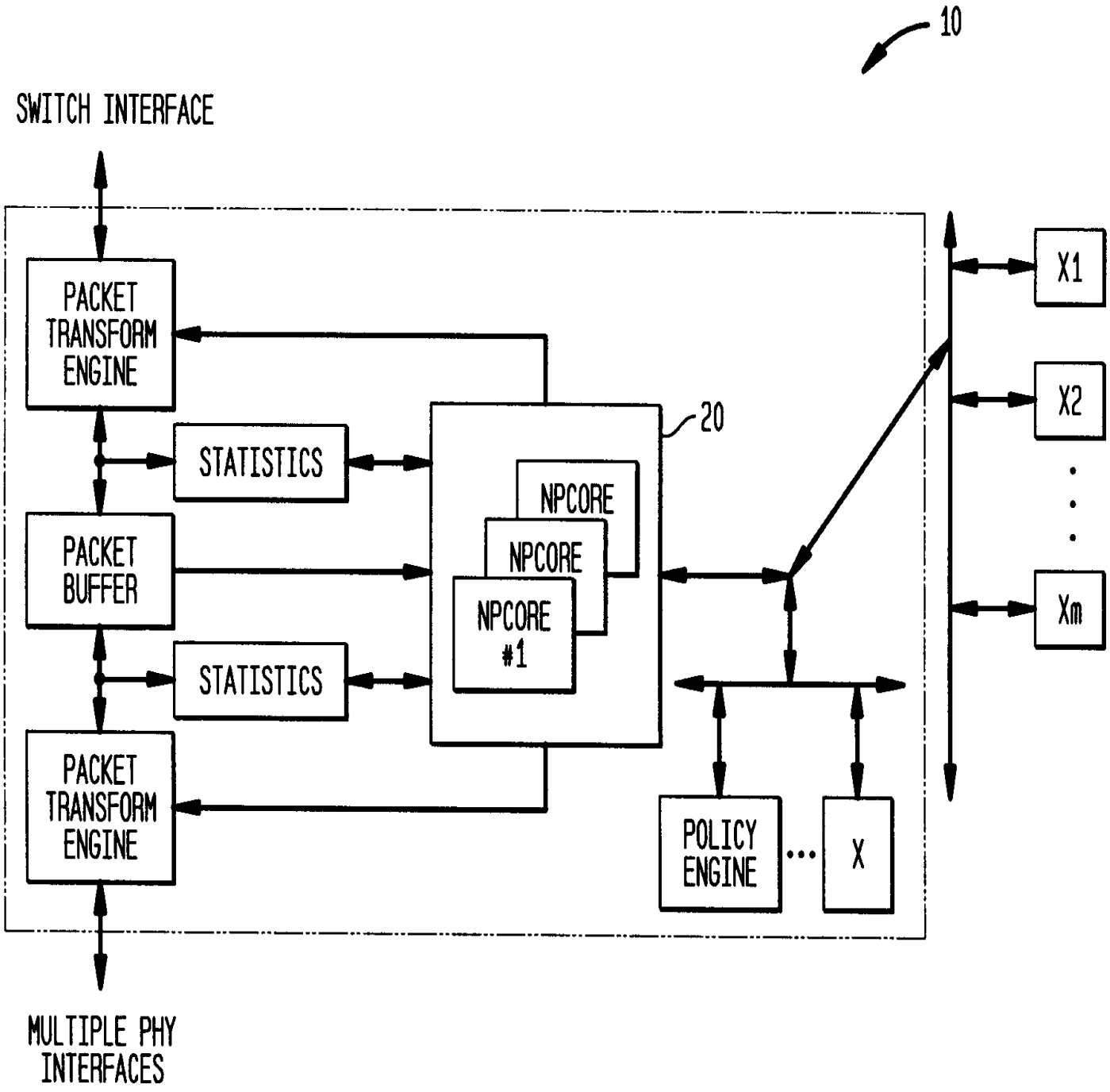
FIG. 1
(PRIOR ART)



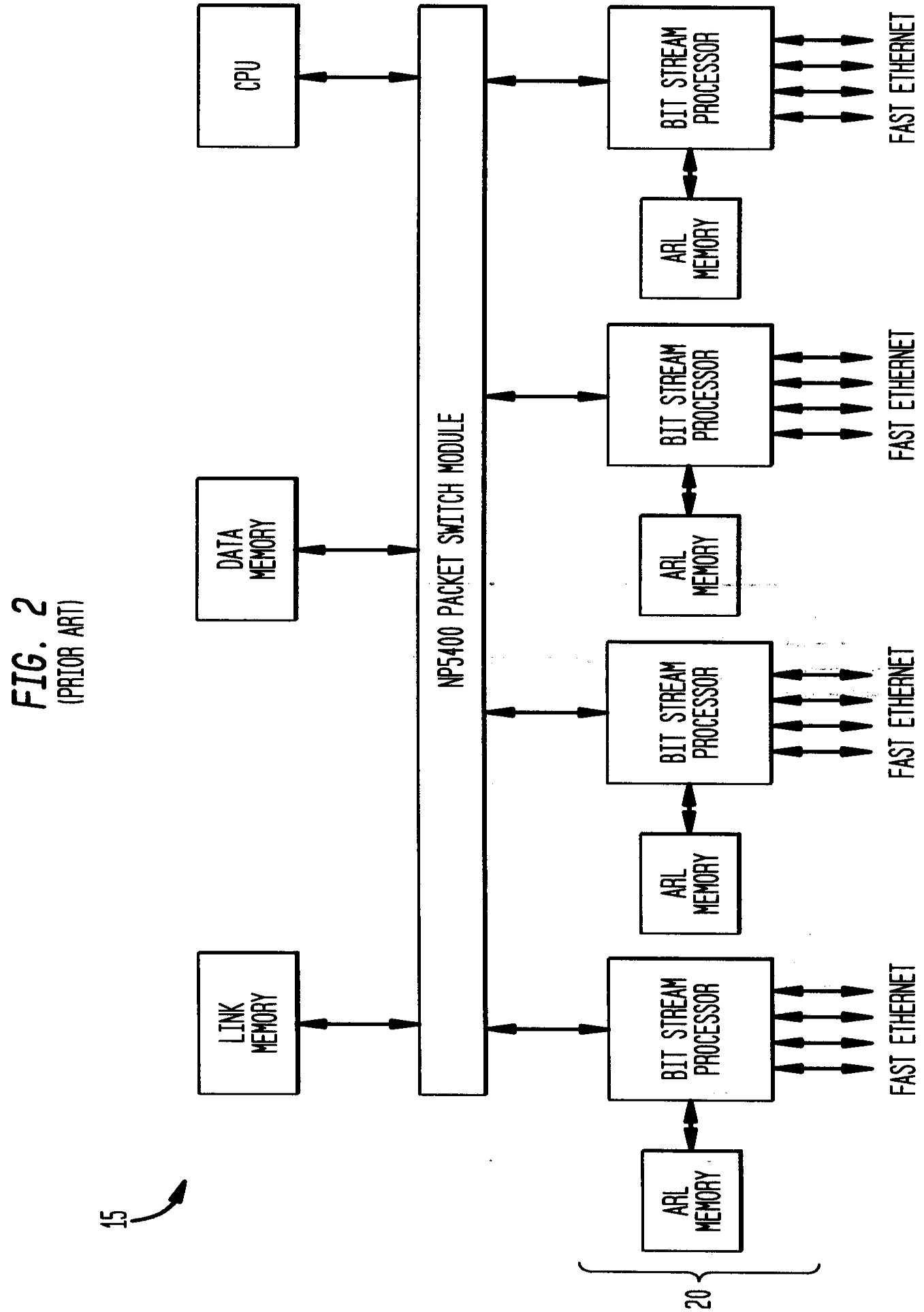


FIG. 2
(PRIOR ART)

FIG. 3
(PRIOR ART)

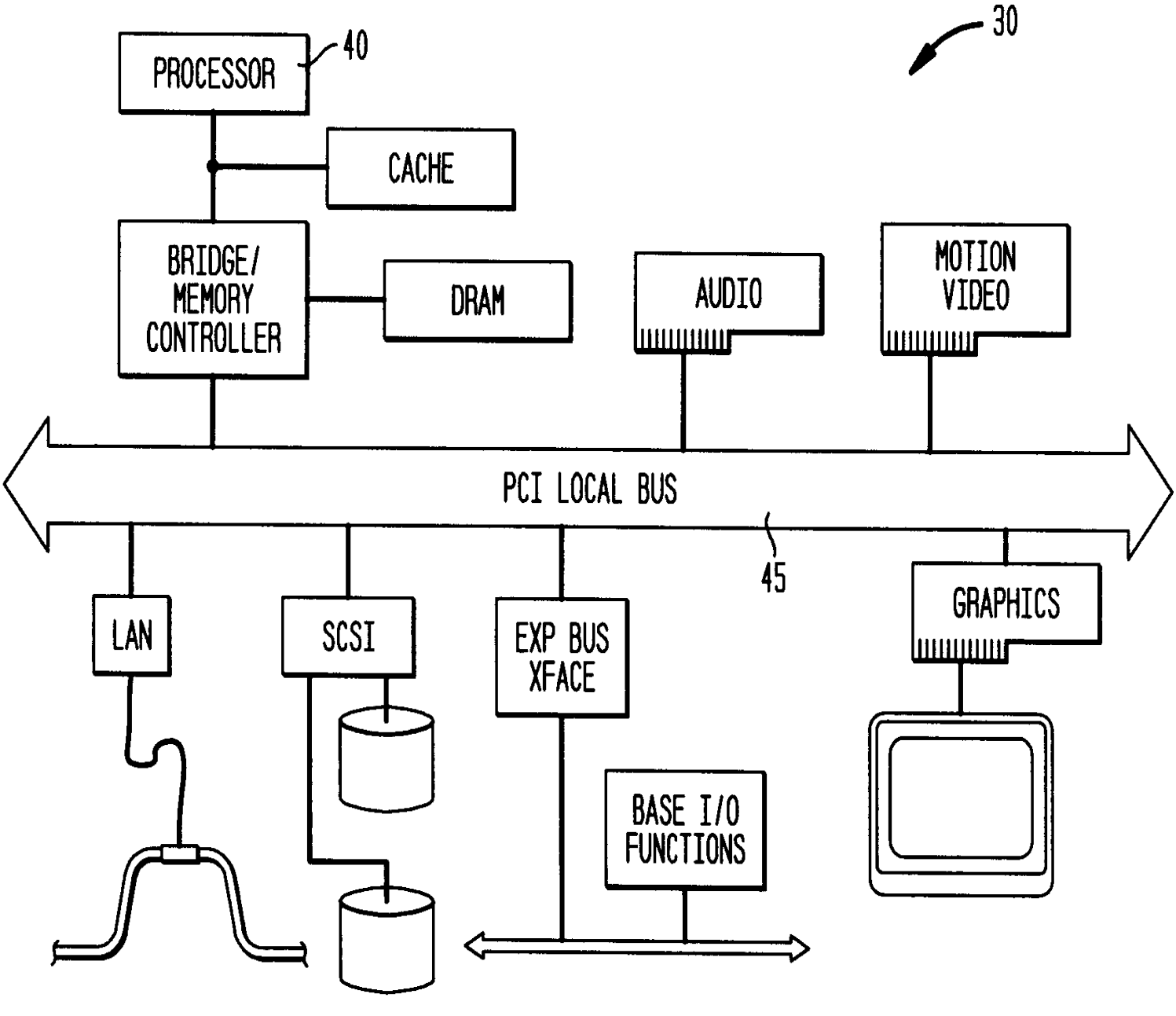


FIG. 4A

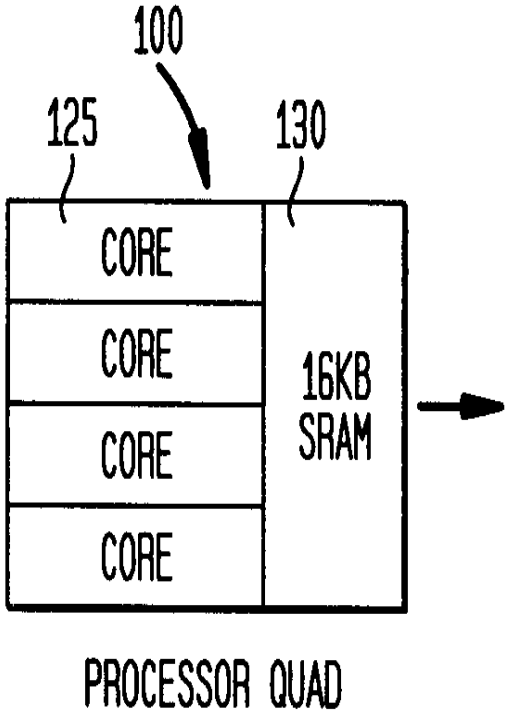

100
125
130
CORE
CORE
CORE
CORE
16KB SRAM
PROCESSOR QUAD

FIG. 4B

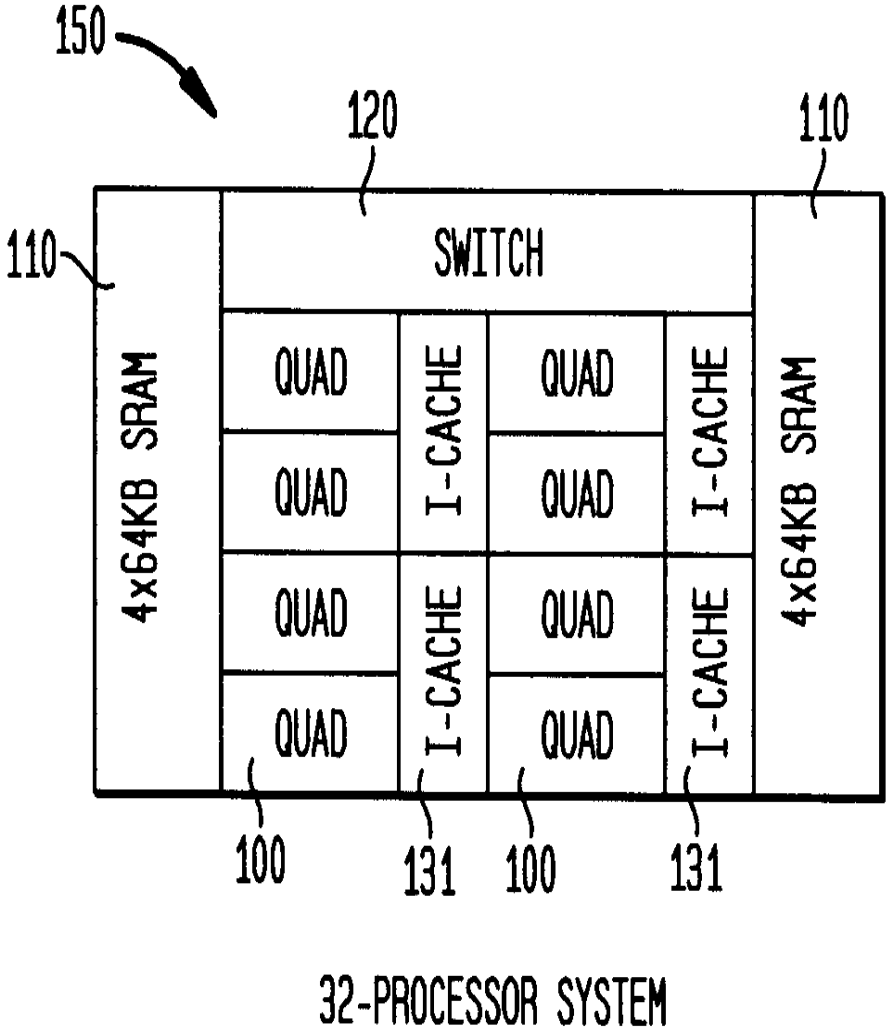
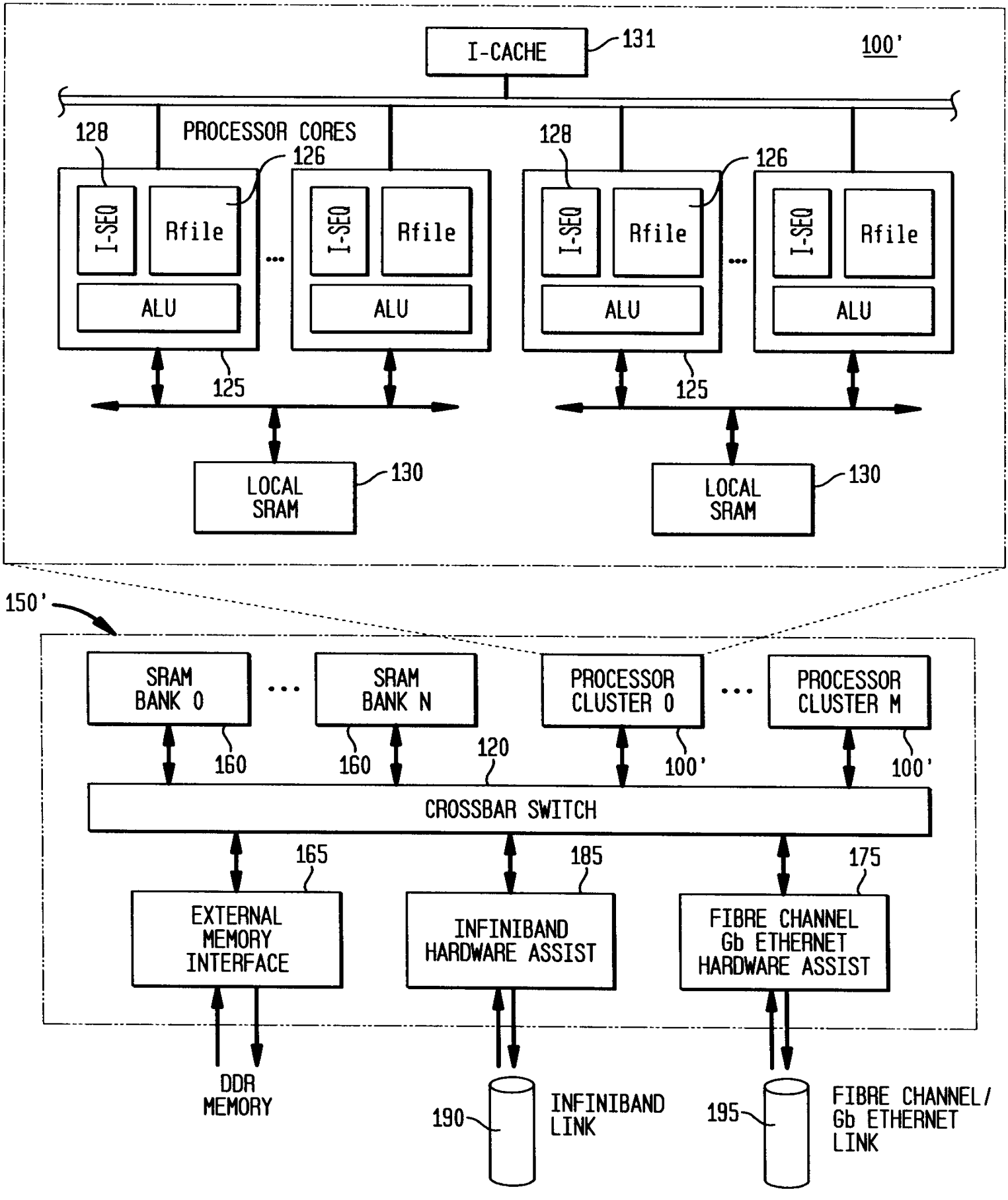

150
120
110
110
SWITCH
4x64KB SRAM
QUAD
I-CACHE
QUAD
QUAD
QUAD
I-CACHE
QUAD
QUAD
QUAD
I-CACHE
QUAD
QUAD
I-CACHE
4x64KB SRAM
100
131
100
131
32-PROCESSOR SYSTEM

FIG. 5


I-CACHE
131
100'
PROCESSOR CORES
128
126
I-SEQ
Rfile
ALU
125
LOCAL SRAM
130
150'
SRAM BANK 0
SRAM BANK N
PROCESSOR CLUSTER 0
PROCESSOR CLUSTER M
160
120
100'
CROSSBAR SWITCH
165
185
175
EXTERNAL MEMORY INTERFACE
INFINIBAND HARDWARE ASSIST
FIBRE CHANNEL Gb ETHERNET HARDWARE ASSIST
DDR MEMORY
190
INFINIBAND LINK
195
FIBRE CHANNEL/ Gb ETHERNET LINK

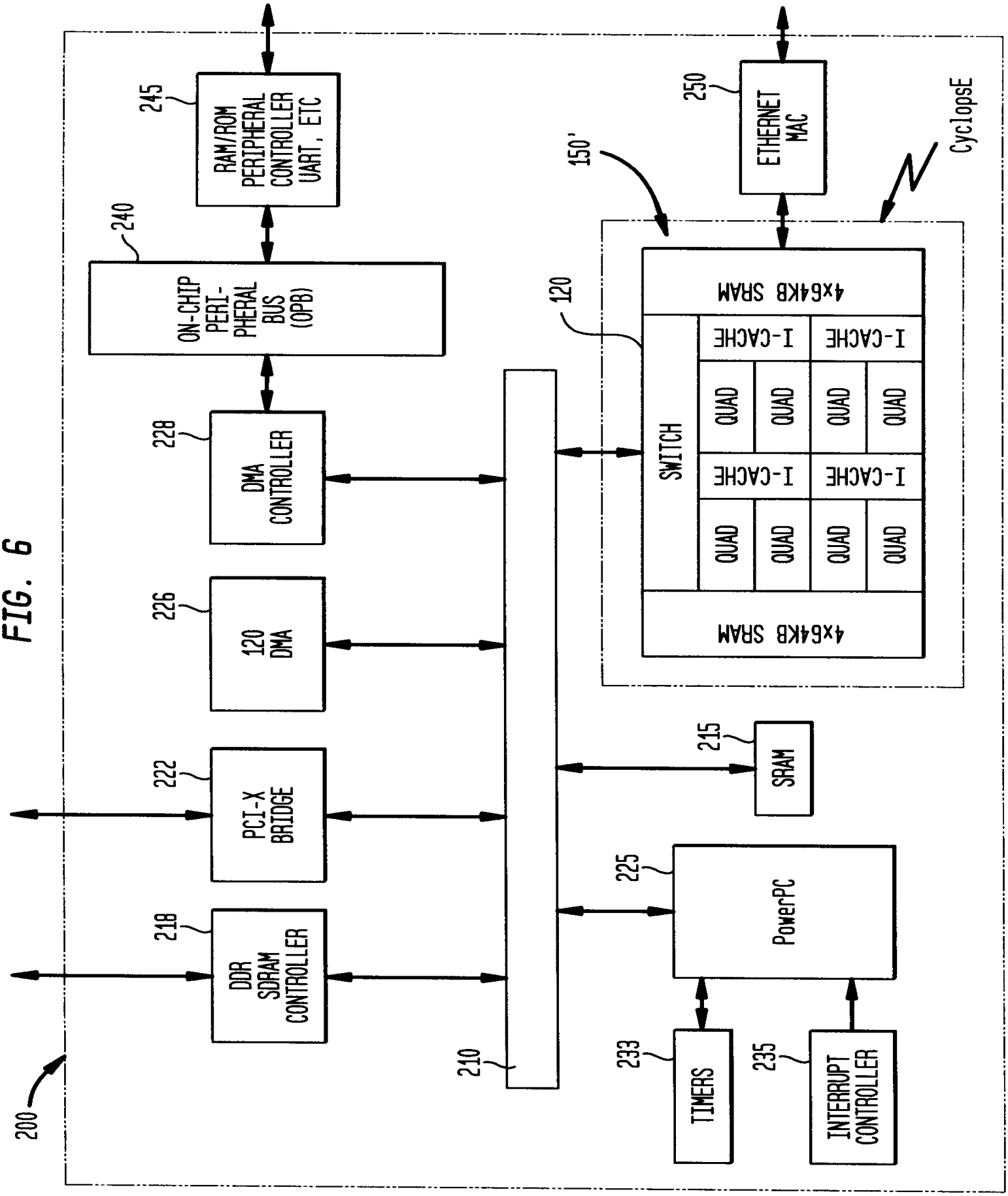

200
245
RAM/ROM PERIPHERAL CONTROLLER UART, ETC
240
ON-CHIP PERI-PHERAL BUS (OPB)
228
DMA CONTROLLER
226
120 DMA
222
PCI-X BRIDGE
218
DDR SDRAM CONTROLLER
210
150'
250
ETHERNET MAC
CyclopsE
120
4x64KB SRAM
I-CACHE
QUAD
SWITCH
215
SRAM
225
PowerPC
233
TIMERS
235
INTERRUPT CONTROLLER

FIG. 6

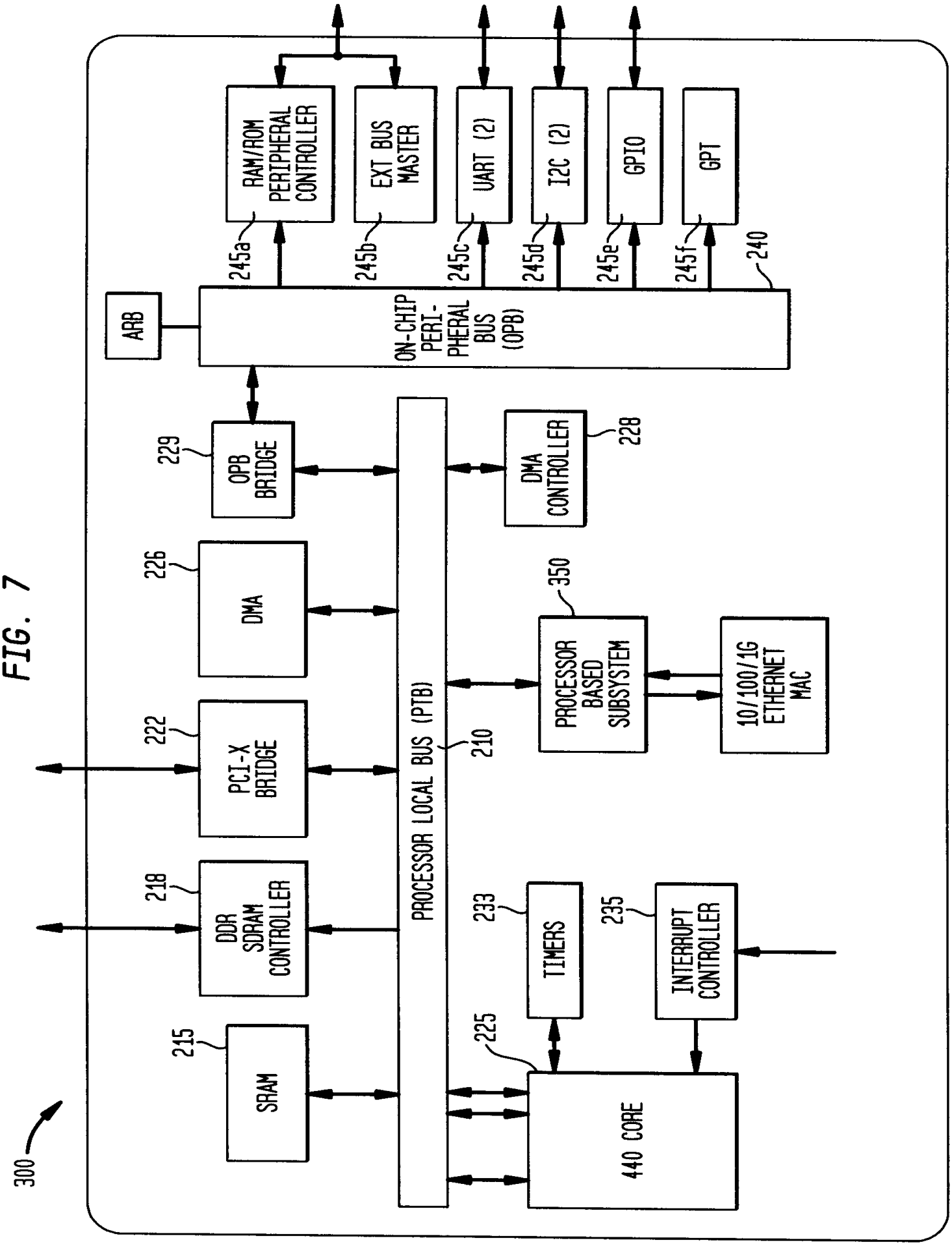

300
440 CORE
SRAM
215
DDR SDRAM CONTROLLER
218
PCI-X BRIDGE
222
DMA
226
OPB BRIDGE
229
PROCESSOR LOCAL BUS (PTB)
210
DMA CONTROLLER
228
PROCESSOR BASED SUBSYSTEM
350
10/100/1G ETHERNET MAC
TIMERS
233
INTERRUPT CONTROLLER
235
225
ARB
ON-CHIP PERI-PHERAL BUS (OPB)
240
245a
245b
245c
245d
245e
245f
RAM/ROM PERIPHERAL CONTROLLER
EXT BUS MASTER
UART (2)
I2C (2)
GPIO
GPT

FIG. 7

FIG. 8

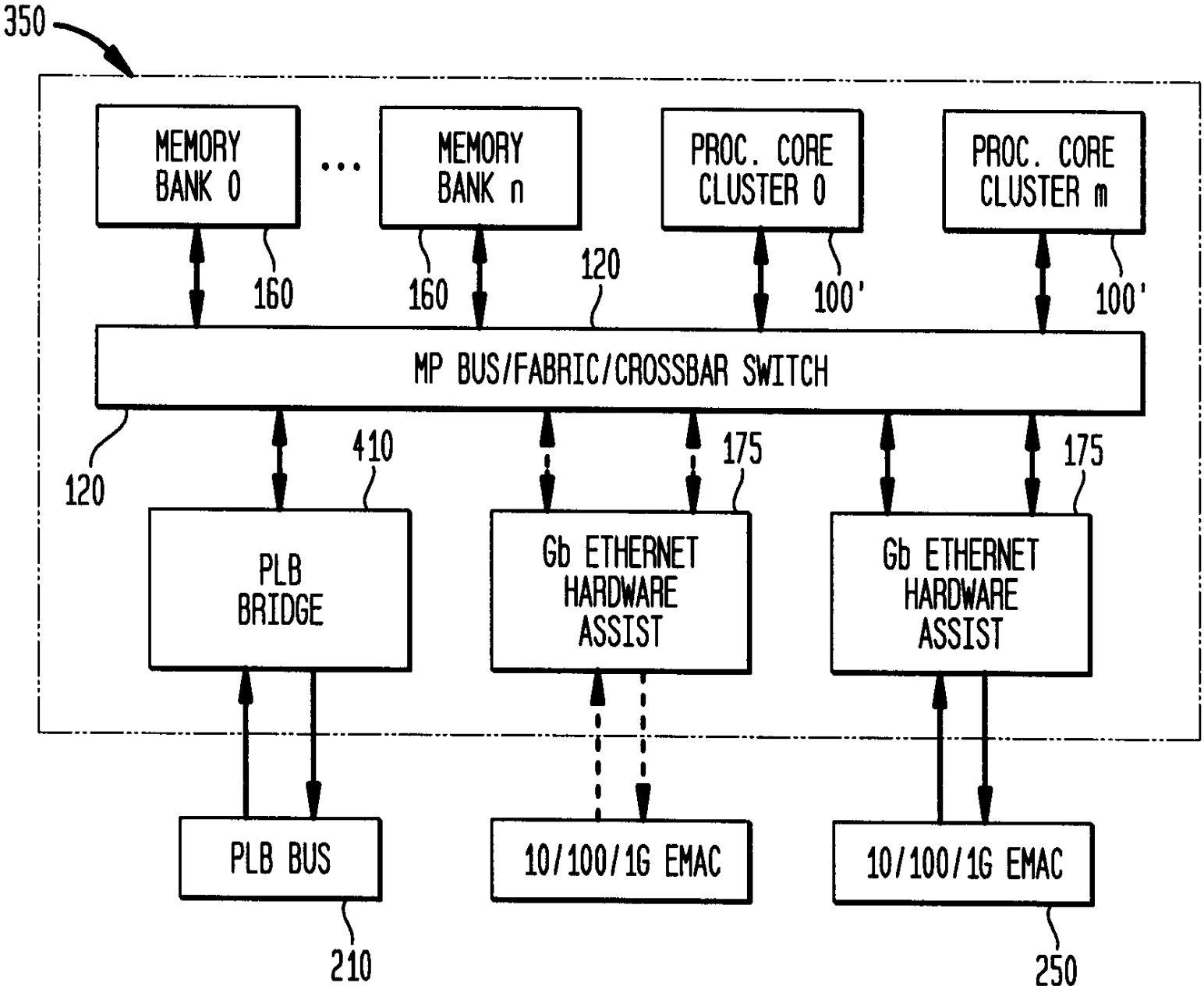

350
MEMORY BANK 0
MEMORY BANK n
PROC. CORE CLUSTER 0
PROC. CORE CLUSTER m
160
160
120
100'
100'
MP BUS/FABRIC/CROSSBAR SWITCH
120
410
175
175
PLB BRIDGE
Gb ETHERNET HARDWARE ASSIST
Gb ETHERNET HARDWARE ASSIST
PLB BUS
10/100/1G EMAC
10/100/1G EMAC
210
250

FIG. 9

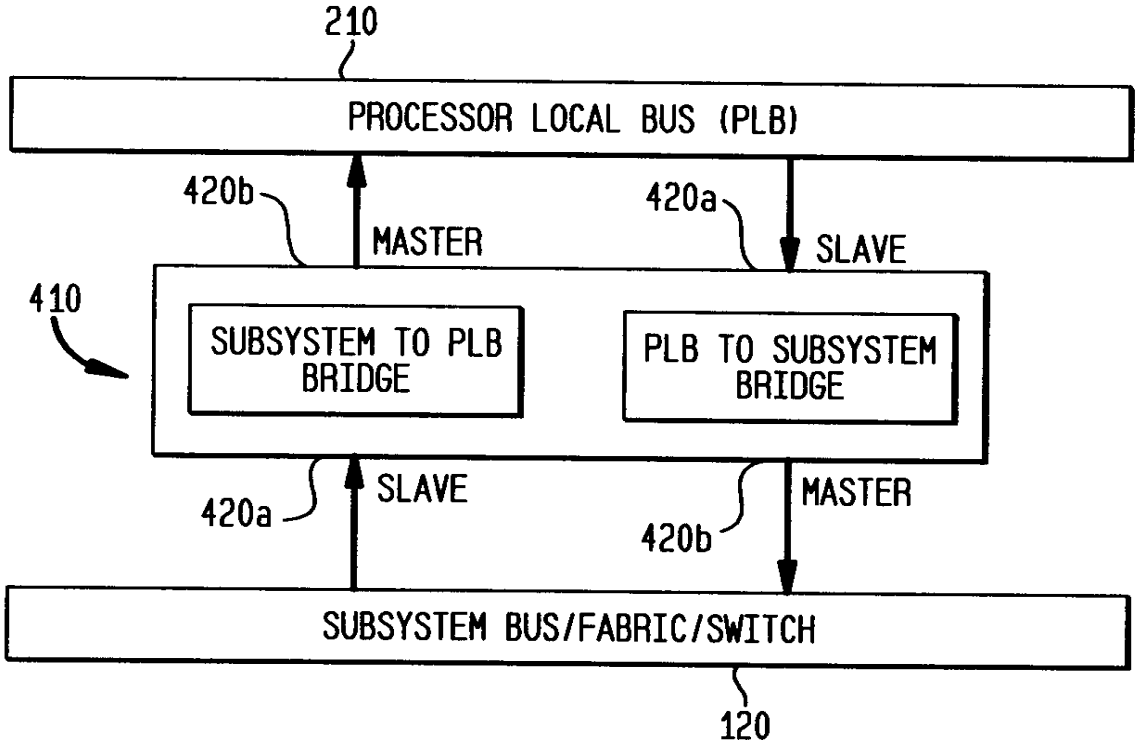
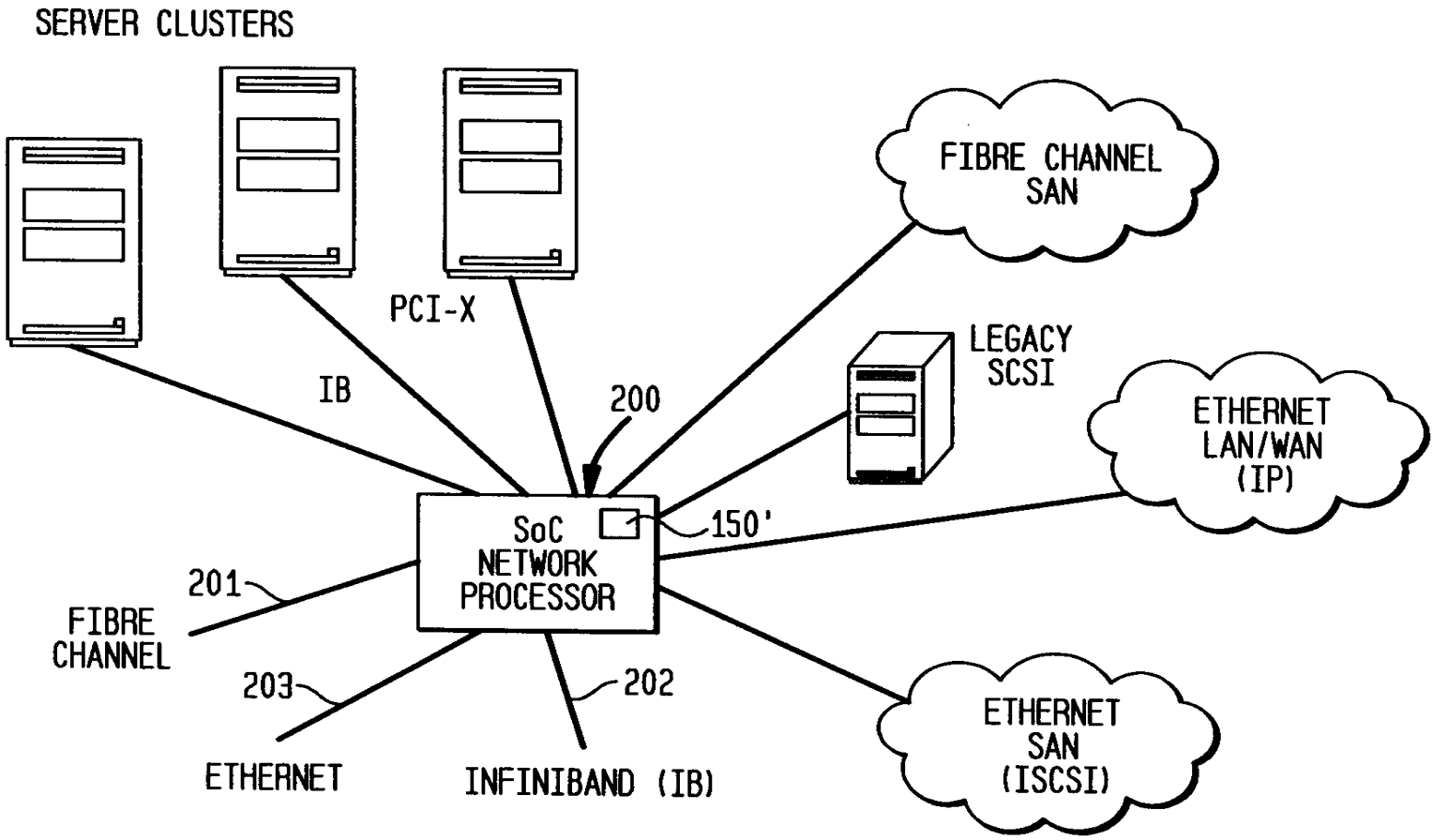

210
PROCESSOR LOCAL BUS (PLB)
420b
MASTER
420a
SLAVE
410
SUBSYSTEM TO PLB BRIDGE
PLB TO SUBSYSTEM BRIDGE
420a
SLAVE
420b
MASTER
SUBSYSTEM BUS/FABRIC/SWITCH
120

FIG. 10


SERVER CLUSTERS
FIBRE CHANNEL SAN
PCI-X
IB
200
LEGACY SCSI
ETHERNET LAN/WAN (IP)
SoC NETWORK PROCESSOR
150'
201
FIBRE CHANNEL
203
ETHERNET
202
INFINIBAND (IB)
ETHERNET SAN (ISCSI)